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Claim 3 (twice amended): ~~The surge layer of claim 1 further comprising a third layer adjacent said first layer on a side away from said second layer, said lower density third layer having a density between 0.01 and 0.05 g/cc, said third layer and said creased layer being bonded together.~~

Remarks

Claims 1-16 are presented for the Examiner's consideration.

Pursuant to 37 C.F.R. § 1.116, reconsideration of the present application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 1 and 3 have been amended to correct a typographical error present in the previous amendment. Support for the upper limit of the density of the low density second layer and the low density third layer can be found in original claim 2, and page 2 of the specification. Therefore, no new matter is introduced into the claims. In addition, new issues are not raised by the forgoing amendment since these limitations appeared in the original claims.

As the Examiner indicated in the Final Rejection, all of the rejections based on the Thompson et al. U.S. Patent 5,368,926 have been withdrawn, except for the rejection of claim 16. In addition, the Examiner made new grounds of rejection based on Bishop et al. U.S. Patent 5,486,166 and Proxmire et al. U.S. Patent 5,192,606.

Claim 16 remains rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over U.S. Patent 5,368,926 to Thompson et al. in view of U.S. Patent 5,695,376 to Datta et al. and U.S. Patent 5,597,647 to Powers. This rejection is respectfully **traversed**.

In the statement of this rejection by the Examiner (pages 4-5 of the Office Action mailed July 6, 2001), the Examiner finds that Thompson et al. discloses all of the limitations of the claims except "that the polyolefin fibers are polyethylene/polypropylene conjugate fibers" (page 4 of the Office Action mailed July 6, 2001) and "that the second and third layers comprise polyethylene/polypropylene fibers" (page 5 of the Office Action mailed July 6, 2001).

Claim 16 requires a personal care product comprising a first creased layer of spunbond polyethylene/polypropylene spunbond fibers and a second and third layer bonded to either side of the creased layer. The second and third layers comprise uncreased spunbond polyethylene/polypropylene fibers which are bonded to the creased layer via through-air bonding.

Thompson et al. teaches a personal care product which can have a creased or pleat-like layer. This creased or pleat-like layer is layer 27, as is shown in Figures 4 and 5 of Thompson et al., and is a fluid accepting and transporting layer. This layer is described in detail starting at column 8, line 49 of Thompson et al. In addition, a detailed description of Figures 4 and 5 appears at column 4, line 63- column 5, line 18.

In Figure 4 of Thompson et al., the creased structure is shown to be a multilayer structure. However, the middle layer of the structure, designated as figure numeral 38, is a tissue, as is clearly stated at column 5, line 3 of Thompson et al. The remainder of the pleated layer 27 is a nonwoven material which is prepared from a unique class of fibers called "capillary channel fibers". These fibers have highly unusual shapes, shown in Figures 6-11, that wick liquid from their surface. These fibers are on either side of the tissue layer 38. There is no suggestion in Thompson et al. to use polyethylene/polypropylene conjugate fibers in the pleated layer 27, or in the alternative, to have uncreased conjugate fibers of polyethylene and polypropylene on either side of the pleated layer.

To remedy the deficiency of Thompson, the Examiner relies upon Datta et al. to teach that conjugate fiber are known in the art as having fluid handing properties. While the Applicants agree that Datta et al. teaches that lofty, porous nonwovens from conjugate fibers in the structure of Datta et al. have fluid handling properties, it is pointed out that the lofty, porous structure of Datta et al. is attached to a barrier layer or outer cover of the personal care product. This structure is below the absorbent layer, which is the primary liquid retention structure in Datta et al., and is not a liquid transfer layer to control a surge of fluid, such as the pleated layer of Thompson et al. There is no indication in Datta et al. that the lofty layer would serve to function as a primary liquid transferring layer used in Thompson et al. In Datta et al., only fluid which passes through the absorbent layer would have to be handled by the lofty, porous structure. The lofty porous structure of Datta et al. only serves as a back-up absorbent layer and does not have a surge controlling function. For this reason, one skilled in the art would not have been motivated to use the lofty nonwoven layer on the inside of the barrier layer of Datta et al. as the primary liquid transporting layer in Thompson et al.

Further, and more importantly, why would one skilled in the art be motivated to replace the shaped fibers of Thompson et al.'s transporting layer with the lofty porous nonwoven layer attached to the inside of the barrier layer of Datta et al.? Thompson requires that the transporting layer must contain the shaped fibers in order to have the desirable fluid transporting properties. Datta et al. does not teach such shaped fibers or that the lofty structure can be used

as the primary liquid transporting layer. Therefore, one skilled in the art would not be motivated by Datta et al. to replace the shaped fibers of Thompson et al. with the lofty nonwoven layer attached to the barrier in Datta et al., since this would destroy the teachings of Thompson et al. Thompson et al. clearly states that the overall absorbency of the article formed using the transport layer from the shaped fibers is enhanced by using the capillary shaped fibers (column 5, line 31-36). Stated another way, Thompson et al. needs the capillary channel fibers in order to achieve the results obtained. Therefore, one skilled in the art would not have been motivated to replace the transporting layer of Thompson et al. with another layer which did not contain the capillary channel fibers, especially a layer that is below the absorbent layer, such as the layer lofty, porous structure of Datta et al.

The Examiner further relies upon Powers to teach a personal care product having an absorbent layer prepared from polyethylene/polypropylene side-by-side conjugate fibers. The Examiner finds that it would have been obvious to one of ordinary skill in the art to substitute the absorbent layer of Thompson et al. with the absorbent layer of Powers. Although the Applicants disagree with the Examiners conclusion, even if one skilled in the art would have found it obvious to substitute the adhesive layer of Thompson et al. with that of Powers, one skilled in the art would still not arrive at the Applicants' claimed invention. That is, there is no teaching in the combination of Thompson et al, Datta et al, and Powers which suggests forming a creased layer prepared from polyethylene/polypropylene conjugate fibers which is bonded on each side of the creased layer with two layers comprising uncreased polyethylene/polypropylene conjugate fibers.

Further, claim 16 requires that the layers are bonded together using through-air bonding. Powers suggest that adhesive bonding be used over thermal bonding (column 7, lines 56-62) when a conjugate layer is formed. It is recognized by the Applicants; however, that the claims of this patent claim thermal point bonding. In any event, Powers does not teach using through-air bonding to bond the layers together, as is clearly required by claim 16. Therefore, Powers actually teaches away from using thermal bonding, which is required by the Applicants' claims.

For the forgoing reasons, it is respectfully submitted that the combination of Thompson et al. with Datta et al. and Powers does not establish a prima facie case of obviousness. Hence, the Examiner is requested to withdraw this ground of rejection.

Claims 1, 2 and 4-15 were rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over on

Bishop et al. U.S. Patent 5,486,166 and Proxmire et al U.S. Patent 5,192,606. This rejection is respectfully traversed.

Claim 1 requires a surge layer for personal care products comprising a compression resistant first creased layer and adjacent a lower density second layer having a density between 0.01 and 0.05 g/cc. The second layer and the creased layer are also bonded together.

While the Examiner correctly determines that Bishop et al. teaches a surge layer, the Examiner incorrectly states that the surge layer of Bishop et al. is creased. There is no teaching in Bishop et al. which would suggest that the surge layer contain a creased material. In the statement of the rejection, the Examiner makes an unsupported statement that Bishop et al. teaches a surge layer having a creased structure. Applicants respectfully request the Examiner to clearly point out where Bishop et al. teaches a creased structure. It is further pointed out that Proxmire et al. also fails to teach a surge layer prepared from a compression resistant creased layer.

In addition, the Examiner relies on the body side liner layer of Proxmire to make an obviousness rejection for the surge layer of the present claims. As is clearly described in Bishop et al. (column 3, lines 30-43), the surge layer is between the body side liner and the absorbent structure. Applicants' claims are direct to the surge layer per se, and not to the body side liner or the absorbent layer. The term "surge layer" has a well accepted meaning to those skilled in the art, as is clearly shown in Bishop et al.

In making the combination of Bishop et al. with Proxmire et al., the Examiner relies on the teachings of body side liner layer of Proxmire et al. to make an obviousness rejection. Actually, the Examiner states in the rejection that it would have been obvious to substitute the body side liner of Bishop et al. with the body side liner of Proxmire et al. However, the Examiner has not stated why one skilled in the art would have been motivated to apply the teachings and technology of the body side liner to the surge layer, which is a separate layer from the body side liner. It is again pointed out that the claims are directed to "A surge layer" or a personal care product containing the claimed surge layer. A body side liner and absorbent layer are separate and distinct layers, having different functions in a person care product than a surge layer. Therefore, even if one skilled in the art would have been motivated to replace the body side liner of Bishop et al., with the body side liner of Proxmire et al., one skilled in the art would not arrive at the Applicants' claimed invention.

In order for a combination of references to render a claim obvious, the claimed invention "as a whole", including all of the limitations of the claim must be taught by the combination of references. Given that neither Bishop et al. nor Proxmire et al. teach a compression resistant creased layer, the combination of Bishop et al. and Proxmire et al. fails to render the claims obvious within the meaning of 35 USC § 103. Separately, even if one skilled in the art were to modify the Bishop et al. with Proxmire et al. as suggested by the Examiner, one skilled in the art would not arrive at the claimed surge layer. Therefore, the Examiner is respectfully requested to withdraw this rejection.

Claim 3 was rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over on Bishop et al. U.S. Patent 5,486,166 and Proxmire et al U.S. Patent 5,192,606 taken further with U.S. Patent 5,597,647 to Powers. This rejection is respectfully **traversed**.

Claim 3 requires a surge layer for personal care products comprising a compression resistant first creased layer and adjacent a lower density second layer having a density between 0.01 and 0.05 g/cc. The second layer and the creased layer are also bonded together. In addition, claim 3 requires a third layer to be bonded to the side of the creased layer opposite the second layer.

Bishop et al. and Proxmire et al. fail to teach a pleated structure for a surge layer, as noted above. Powers fails to remedy this deficiency of Bishop et al. and Powers.

Powers teaches a protective laminate which can be used in a personal care product wherein the absorbent layer can comprise a polyethylene/polypropylene conjugate polymer. Powers does not teach or suggest a surge layer which is creased or teach that the surge layer can be a three layer structure having a creased layer surrounded by two uncreased layer having a density between 0.01 and 0.05 g/cc, as is required by claim 3. As is stated above, a surge layer is separate and distinct from an absorbent layer. The Examiner has not provided any reasoning why one skilled in the art would use an absorbent material in a surge layer, especially since an absorbent layer has a separate function from a surge layer. Again, it is pointed out that the claims are directed to a surge layer or a personal care article containing the claimed surge layer. Therefore, the Examiner is respectfully requested to withdraw this rejection.

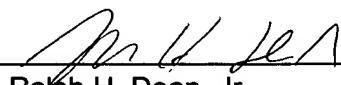
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The undersigned may be reached at: (770) 587-7204.

Respectfully submitted,

CREAGAN ET AL.

By:



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CERTIFICATE OF MAILING

I, Ralph H. Dean, Jr., hereby certify that on February 6, 2002 this document is being deposited with the United States Postal Service as first-class mail, postage prepaid, in an envelope addressed to: BOX AF Assistant Commissioner of Patents, Washington, D.C. 20231.

By:



Ralph H. Dean, Jr.

Version Of Claims With Markings To Show Changes Made

Claim 1 (twice amended) A surge layer for personal care products comprising a compression resistant first creased layer adjacent a lower density second layer having a density between 0.01 and 0.05 [0.15] g/cc, said second layer and said creased layer being bonded together.

Claim 3 (twice amended): The surge layer of claim 1 further comprising a third layer adjacent said first layer on a side away from said second layer, said lower density third layer having a density between 0.01 and 0.05 [0.15] g/cc, said third layer and said creased layer being bonded together.